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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/685,322	10/14/2003	Mark Hirst	200309706-1	5015

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EXAMINER


EICKHOLT, EUGENE H

ART UNIT PAPER NUMBER

2854

DATE MAILED: 03/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/685,322	Applicant(s) HIRST ET AL. 	
	Examiner Eugene H. Eickholt	Art Unit 2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 24-43 and 47 is/are allowed.
- 6) ☒ Claim(s) 1,6-12, 17-19, 21-23 and 44 is/are rejected.
- 7) ☒ Claim(s) 2-5, 13-16 and 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>10-14-03</u> . | 6) <input type="checkbox"/> Other: ____  |

Claims 7-8,10 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

No antecedent basis is present for " the print element" or the "imaging device print element " in claim 10.

Claims 45-46 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention .Claims 45-46 refer to claims 35-36 as method claims while in fact they are apparatus claims.

Claims 1, 6, 9, 11-12, 18-19, 21, 22, 23 and 44 are rejected under 35 U.S.C. 102(e) as being anticipated by Maeda et al.

The information processor 10 includes a display unit 16. See fig. 1 and paragraph 28. This reads on the imaging device. The cpu 20 reads on the element which generates heat. See the abstract and paragraph 33. The cooling unit 40 includes a thermoelectric conversion module 60A and a fan 44 which reads on the thermoelectric generator and the cooling device. See paragraph number 37.

Paragraph 9, teaches " a current output from the first thermoelectric conversion part is input to the second thermoelectric conversion part to cool the second heat receiving part." See also paragraph 78 in this regard. Paragraph 92 teaches the cooling units 40, 41 perform both power generation and cooling.

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Regarding claims 6 and 18 see paragraph 57 teaching the Peltier effect and paragraph 58 teaching the Seebeck effect. As current has voltage, claims 9 and 21, are anticipated.

Fan 44 reads on the exhaust fan of claim 11 and 23. See paragraph 36. The cooling control program is configured to reduce temperature as recited in claim 22.

Paragraph 111 reads on claim 44.

Regarding claim 10, figure 2 shows the thermoelectric conversion module 60A thermally coupled to the CPU 20 (heat source) and "bonded" on its other side to heat sink 42. See paragraph 35.

Claims 2-5, 13-16 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


Claims 24-43 and 47 stand allowed.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. If applicant intends to swear in back of Maeda et al, then such affidavit is required with the next response or will be refused consideration as being untimely.

A shortened statutory, period of 3 months is set to respond.

Eickholt/ds

03/22/05

  
EUGENE H. EICKHOLT  
PRIMARY EXAMINER

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Any inquiry concerning the specifics of this communication should be directed to Examiner Eickholt, who can be reached Tuesday through Thursday. Inquiries of a general nature should be directed to the TC2800 receptionist.

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